

ABT Burner Issues

Discussion with Staff

October 26, 2005

History

F3 Burner Fire

- Melt Down of Coal Nozzle
- New Burner Module on Order (delivery in late Nov.)
- Suspect erosion of nozzle as cause
- Inspected all 6 burners during U2 tube-leak outage

Elbow Damage

- F1 & F2, eroded through elbows
- F4 & F5, eroded through inner ceramic lining

Nozzles

- F6; coal erosion at 3:00 and 9:00 o'clock at exit from X-vane

Tip Damage

- Erosion at 11:00 and 1:00 o'clock positions *Tags, not bottoms*
 - All of F tips
 - E1 E6 C2 & C5
- Cracking of tip noted in all of F, E1 and C2
- Warping of CS at tip on all of F nozzles. (Overheat in out-of-service burners)

Thermocouples

- 1/4" TC's can't be inserted into thermowells
 - Tight bends
 - Pipe rather than tubing used
- 1/16" TC's substituted
- Temperature switches disabled
- Alarms added to TC's

ABT

Reply to initial letter

- Wear parts
- Velocities higher than design conditions
- Deny warranty claims
- Invited (Tuesday) to site for U2 outage; did not send anyone
- Have sent them preliminary findings and photos

Pulverizer Issues

Biases

- High PA Flows (duct pressures up)
- Feeder biases
- Improper limits on F-row for 5-burners

Options

Classifiers

8-mill operation

Redesign burners with ABT

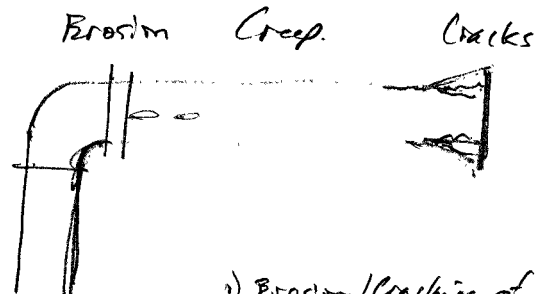
Change PA flow curves for new rotating throats

Modify elbows

Other suggestions?

Actions

PI I Nozzles : tips



- 1) Erosion/Cracking of tip.
- 2) Creep (Stage II) of nozzle
- 3) Erosion of nozzle

IP7_030083